long as the binding mechanism is consumed or expelled during operation of the consuming machine.

In a preferred embodiment, applicator 104 is moved across an exposed surface of staple wire plate 102 so as to provide a quantity of adhesive which will provide a bond strong enough to preserve the mechanical integrity of a fully constructed staple wire refill 303. Full coverage of the surface of a plate, such as plate 102, may not be needed depending upon the strength of deposited adhesive 103. For strong adhesives, partial coverage of plate 102 may suffice. For weaker adhesives, complete coverage of plate 102 with adhesive material may be desirable. In a preferred embodiment, the application of adhesive to surfaces of the various staple wire plates may be automated in order to supply adhesive material in a more rapid, more consistent, and more cost effective manner.

FIGURE 2 shows refill 303 disposed within cartridge 200. Forming plate 201 is shown on the left portion of the FIGURE. Section 202 is preferably a structural component of cartridge 200.

In a preferred embodiment, wire 203 of the bottom plate of refill 303 is substantially aligned with narrowed portion 204 of forming plate 201. During each stapling cycle, a forming tool (not shown) is moved towards staple 203 and narrow portion 204 of forming plate 201. Proper engagement of the forming tool with forming plate 201 preferably causes staple 203 to be formed into a "U" shape in preparation for the insertion of the newly formed staple into paper or other appropriate media. In this manner, staple 203 is preferably detached from the bottom staple layer or plate of staple refill 303, by the operation of the forming tool (not shown), without significantly disturbing a remainder of refill 303.

FIGURE 3 presents a side view 300 of staple refill 303 placed on cartridge 200 according to a preferred embodiment of the present invention. Blade 302 preferably operates to advance plate or layer 304 by a measured amount for each stapling cycle, thereby pushing an end of plate 304 in between forming plate 201 and guiding plate 301. The advancement of plate 304 preferably continues until all staples within plate 304 have been formed and driven

into paper or other media. At that point, the plate adjacent plate 304, within refill 303, is preferably advanced towards forming plate 201 and guiding plate 301 as discussed above for plate 304. In a preferred embodiment, case 305 operates to restrain the movement of staple refill 303 during operation of blade 302 for the purpose of advancing plate 304.

FIGURE 4 depicts an isometric view 400 of the same equipment shown in FIGURE 3. FIGURE 5 depicts an isometric view 500, from above, of the equipment shown in FIGURE 3.

FIGURE 6 is a close up view 600 of the subject matter of FIGURE 3. It may be observed that in a preferred embodiment of the invention, when blade 302 moves to one side, for example toward the left, the angle of attack of blade 302 with respect to lowest plate 304 is such as to impart enough force to break the adhesive bond between plate 304 and the immediately adjacent plate, which is preferably above plate 304. Blade 302 thereby preferably causes plate 304 to move to one side, for example, to the left, with the movement of blade 302. However, when blade 302 is moved to the other side, for example to the right, the angle of attack is such as to impart very little if any force to blade 302.